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3. (Amended) A railroad tie according to claim 1, wherein said concave shapes are in the form of truncated cones.

4. (Amended) A railroad tie according to claim 1, wherein said concave shapes are truncated pyramidal shapes.

A3

15. (Amended) A railroad tie according to claim 8, wherein the concave shapes have a depth of 1/4 - ½ inches.

16. (Amended) A railroad tie according to claim 9, wherein the concave shapes have a depth of 1/4 - ½ inches.

17. (Amended) A railroad tie according to claim 1, wherein said tie is formed from a ~~a~~ material comprising a polymeric component selected from polyolefins, polystyrene, rubber and mixtures thereof, and optionally a filler component selected from fiber glass, mineral fillers, wood fibers, steel fibers and mixtures thereof.

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20. (Amended) A railroad tie according to claim 1, wherein said tie is formed from a plastic composite material comprising 20-50 wt% of a polystyrene component and 50-80 wt% of a polyolefin component, and said polystyrene component contains at least 90 wt% polystyrene and said polyolefin component contains at least 75 wt% high density polyethylene.

21. (Amended) A railroad tie according to claim 1, wherein regions adjacent each end of said at least one longitudinal side have said concave shapes with a depth of less than 1 inch while other regions of said at least one longitudinal side have concave shapes with a depth greater than the depth of the concave shapes in said regions adjacent each end, the depth of said concave shapes in said other regions being ~~of~~ up to 2 inches.

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23. (Amended) A railroad tie according to claim 3, wherein regions adjacent each end of said at least one longitudinal side have said concave shapes with a depth of less

than 1 inch while other regions of said at least one longitudinal side have concave shapes with a depth greater than the depth of the concave shapes in said regions adjacent each end, the depth of said concave shapes in said other regions being ~~of~~ up to 2 inches.

24. (Amended) In a method of maintaining desired spacing between railroad rails comprising attaching said rails to at least one railroad tie, the improvement wherein said at least one railroad tie is in accordance with claim 1.

25. (Amended) In a method of providing a weight bearing support surface for railroad rails comprising attaching said rails to at least one railroad tie, the improvement wherein said at least one railroad tie is in accordance with claim 1.--

Please add the following new claims:

--26. A railroad tie according to claim 4, wherein regions adjacent each end of said at least one longitudinal side have said concave shapes with a depth of less than 1 inch while other regions of said at least one longitudinal side have concave shapes with a depth greater than the depth of the concave shapes in said regions adjacent each end, the depth of said concave shapes in said other regions being up to 2 inches.

27. A railroad tie according to claim 15, wherein the sides of the truncated cone shapes are at an angle of 40-50 degrees with respect to said at least one longitudinal side.

28. A railroad tie according to claim 16, wherein the sides of the truncated pyramidal shapes are at an angle of 40-50 degrees with respect to said at least one longitudinal side.

29. A railroad tie according to claim 15, wherein said tie is formed from a plastic composite material comprising 20-50 wt% of a polystyrene component and 50-80 wt% of a polyolefin component, and said polystyrene component contains at least

A4 concld

90 wt% polystyrene and said polyolefin component contains at least 75 wt% high density polyethylene.

30. A railroad tie according to claim 16, wherein said tie is formed from a plastic composite material comprising 20-50 wt% of a polystyrene component and 50-80 wt% of a polyolefin component, and said polystyrene component contains at least 90 wt% polystyrene and said polyolefin component contains at least 75 wt% high density polyethylene.

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31. A railroad tie according to claim 27, wherein said tie is formed from a plastic composite material comprising 20-50 wt% of a polystyrene component and 50-80 wt% of a polyolefin component, and said polystyrene component contains at least 90 wt% polystyrene and said polyolefin component contains at least 75 wt% high density polyethylene.

32. A railroad tie according to claim 28, wherein said tie is formed from a plastic composite material comprising 20-50 wt% of a polystyrene component and 50-80 wt% of a polyolefin component, and said polystyrene component contains at least 90 wt% polystyrene and said polyolefin component contains at least 75 wt% high density polyethylene.

33. A railroad tie according to claim 15, wherein the distance from the center of one concave shape to the center of an adjacent concave shape is 1 ½ to 2 ½ inches.

34. A railroad tie according to claim 16, wherein the distance from the center of one concave shape to the center of an adjacent concave shape is 1 ½ to 2 ½ inches.--